

ABSTRACT

We describe here an *in vitro* method of redistributing sequence variations between non-identical polynucleotide sequences, by making a heteroduplex polynucleotide from two non-identical polynucleotides; introducing a nick in one strand at or near a base pair mismatch site; removing mismatched base(s) from the mismatch site where the nick occurred; and using the opposite strand as template to replace the removed base(s) with bases that complement base(s) in the first strand. By this method, information is transferred from one strand to the other at sites of mismatch.